



# Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

### Action Requested:

- Create New (SCHEV approval required except for minors)
- Inactivate Existing
- Modify Existing (check all that apply)
  - Title (SCHEV approval required except for minors)
  - Concentration** (Choose one):  Add  Delete  Modify
  - Degree Requirements
  - Admission Standards/ Application Requirements
  - Other Changes: \_\_\_\_\_

### Type (Check one):

- B.A.  B.S.  Minor
- M.A.  M.S.  M.Ed.
- Ph.D.
- Undergraduate Certificate\*
- Graduate Certificate\*
- Other:

<b>College/School:</b>	College of Science	<b>Department:</b>	BIOL
<b>Submitted by:</b>	Jen Gettys	<b>Ext:</b>	3.5302
		<b>Email:</b>	jbazaz@gmu.edu

**Effective Term:** Fall  **Please note:** For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

### Justification: (attach separate document if necessary)

Adding "Mason Core and Elective Credits" and "Mason Core" sections in order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.

**Program Title:** (Required)  
Title must identify subject matter. Do not include name of college/school/dept.

**Concentration(s):**

**Admissions Standards / Application Requirements:**  
(Required only if different from those listed in the University Catalog)

**Degree Requirements:**  
Consult University Catalog for models, attach separate document if necessary using track changes for modifications

Existing	New/Modified
Medical Laboratory Science, BS	
[Mason Core and Electives section not included]	See the bottom portion of the degree listing attached.

**Courses offered via distance:**  
(if applicable)

**TOTAL CREDITS REQUIRED:**

\*For Certificates Only: Indicate whether students are able to pursue on a  Full-time basis  Part-time basis

## Approval Signatures

Department	Date	College/School	Date	Provost's Office	Date
Required for Minors and Interdisciplinary Programs					

If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

### For Graduate Programs Only

Graduate Council Member	Provost Office	Graduate Council Approval Date
-------------------------	----------------	--------------------------------

## **Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)**

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference.  
Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

---

### **FOR ALL PROGRAMS** (required)

Program Title: Medical Laboratory Science, BS

Date of Departmental Approval: 3/11/2015

### **FOR INACTIVATED PROGRAMS** (required if inactivating a program)

- Reason for Inactivation:

### **FOR MODIFIED PROGRAMS** (required if modifying a program)

- Summary of the Modification: Adding "Mason Core and Elective Credits" and "Mason Core" sections.
- Text before Modification (title, degree requirements, etc.): Sections weren't included.
- Text after Modification (title, degree requirements, etc.): See attached.
- Reason for the Modification: In order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.

### **FOR NEW PROGRAMS** (required if creating a new program)

- Reason for the New Program:
- Relationship to Existing Programs:
- Relationship to Existing Courses:
- Semester of Initial Offering:
- Insert Tentative SCHEV Proposal Below

## Medical Laboratory Science, BS

---

**Banner Code: SC-BS-MLAB**

This program of study is offered by the [Department of Biology](#) in the [College of Science](#).

This program requires the equivalent of three years of full-time preprofessional study at the college level preceding a senior year of professional education in an affiliated school of medical laboratory science. All affiliated schools are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Responsibility for applying to schools of medical laboratory science and gaining admission rests with the student; however, guidance is provided by the medical laboratory science program director. Admission to medical laboratory science schools is selective, so candidates should strive for strong academic standing. Students who fail to gain admission to an affiliated NAACLS-approved school are unable to complete the degree program. Such students may transfer to the biology major without loss of credits.

Application to medical laboratory science schools should be initiated about a year before the desired entrance date. This fact, coupled with the large number of required courses in the preprofessional curriculum, makes it imperative that students in the program consult regularly with the medical laboratory science program coordinator. All medical laboratory science majors and prospective majors are urged to enroll in [MLAB 200](#) as early as possible. This course provides information on the profession, as well as the educational demands placed on candidates.

Students must fulfill all [requirements for bachelor's degrees](#) including the [Mason Core\\*](#). In addition:

- Students must complete [MLAB 200](#) and present the following courses in their biology coursework and supporting requirements with a minimum GPA of 2.00.
- A grade of 'C' or better must be earned in [BIOL 213](#) in order to advance to other major requirements. Students may repeat [BIOL 213](#) once and a second time only with permission of the [Department of Biology](#).
- Medical laboratory science majors must earn a minimum of 'C' in all biology core courses listed below.
- Through the coursework below, majors satisfy the [Mason Core](#) requirements in 'Natural Science', 'Quantitative Reasoning', and 'Information Technology'.
- Taking [MLAB 300](#) fulfills this major's writing intensive requirement.
- **\*Note:** Because of the extensive preprofessional education requirements stipulated by NAACLS, students majoring in medical laboratory science are exempt from the [Mason Core](#) 'Arts' requirement.

Senior students are registered at the university through special procedures. For details, consult the medical laboratory science program coordinator.

Students should be aware that the senior year spent off campus requires the following special interpretation of university policies: transfer students must present at least 16 credits of 300 to 400-level biology or chemistry coursework taken at Mason; no unsatisfactory grades (less than 'C') may be presented for courses in the senior year of professional study. Transfer students entering with more than 45 transfer credits are often unable to complete the preprofessional phase of their program in the usual three years of full-time study.

Important information and departmental policies are listed in the [Department of Biology](#) section of this catalog.

## Degree Requirements

---

### Biology Core (12 credits)

---

- [BIOL 213 - Cell Structure and Function](#) Credits: 4 ([Mason Core: Natural Science](#) course)
- [BIOL 214 - Biostatistics for Biology Majors](#) Credits: 4
- [BIOL 311 - General Genetics](#) Credits: 4

### MTCH and BIOL Additional Courses (19 credits)

---

- [MLAB 200 - Introduction to Medical Laboratory Science](#) Credits: 1
- [MLAB 300 - Science Writing](#) Credits: 2 (fulfills Writing Intensive requirement)
- [BIOL 305 - Biology of Microorganisms](#) Credits: 3
- [BIOL 306 - Biology of Microorganisms Laboratory](#) Credits: 1
- [BIOL 430 - Advanced Human Anatomy and Physiology I](#) Credits: 4
- [BIOL 431 - Advanced Human Anatomy and Physiology II](#) Credits: 4
- [BIOL 452 - Immunology](#) Credits: 3
- [BIOL 453 - Immunology Laboratory](#) Credits: 1

### Chemistry (17-18 credits)

---

- [CHEM 211 - General Chemistry](#) Credits: 4 ([Mason Core: Natural Science](#) course)
  - [CHEM 212 - General Chemistry](#) Credits: 4 ([Mason Core: Natural Science](#) course)
  - [CHEM 313 - Organic Chemistry](#) Credits: 3
  - [CHEM 315 - Organic Chemistry Lab I](#) Credits: 2
- And** one of the following options:
- [BIOL 483 - General Biochemistry](#) Credits: 4
- Or**
- [CHEM 314 - Organic Chemistry II](#) Credits: 3 **and** [CHEM 318 - Organic Chemistry Lab II](#) Credits: 2

### Mathematics (3-6 credits)

---

- [MATH 111 - Linear Mathematical Modeling](#) Credits: 3 **or** [MATH 113 - Analytic Geometry and Calculus I](#) Credits: 4 ([Mason Core: Quantitative Reasoning](#) courses) **or both** [MATH 123 - Calculus with Algebra/Trigonometry, Part A](#) Credits: 3 **and** [MATH 124 - Calculus with Algebra/Trigonometry, Part B](#) Credits: 3

### Computer Skills Course (3 credits)

---

- [CDS 130 - Computing for Scientists](#) Credits: 3 ([Mason Core: Information Technology](#) course and is recommended course for this major)
- **Or** any course(s) which fulfills the [Mason Core: Information Technology](#) requirement

### Professional Study (maximum 30 credits)

---

Students may have up to 30 credits of professional study during the senior year awarded for clinical education at an affiliated school of medical technology. The distribution of credits in these courses varies with the school of medical technology. No more than 30 professional credits may be applied toward the degree.

Courses that may be awarded for the clinical year include:

- [MLAB 401 - Orientation to the Problems and Practices of the Clinical Laboratory](#) Credits: 1-2
- [MLAB 402 - Clinical Hematology and Coagulation](#) Credits: 1-8
- [MLAB 403 - Clinical Microscopy](#) Credits: 1-3
- [MLAB 404 - Serology and Immunohematology](#) Credits: 1-7
- [MLAB 405 - Clinical Microbiology](#) Credits: 1-8
- [MLAB 406 - Clinical Chemistry](#) Credits: 1-10

## Notes

---

Students are encouraged to elect additional basic science courses during their preprofessional years. Recommended courses are [BIOL 465](#), [BIOL 483](#), [BIOL 484](#), and [BIOL 485](#); [CHEM 321](#); and [PHYS 243](#), [PHYS 244](#), [PHYS 245](#), and [PHYS 246](#).

## Mason Core and Elective Credits (32-36 credits)

---

These 32-36 credits are available to fulfill any remaining [Mason Core](#) requirements (outlined below). Once those and all [requirements for bachelor's degrees](#) are met, any remaining credits may be completed by elective courses. Students are strongly encouraged to consult with their advisor to ensure that they fulfill all requirements.

## Mason Core

---

Please note that some [Mason Core](#) requirements may already be fulfilled by the major requirements listed above.

Expand each item below for a link to specific course lists for each category:

### Foundation Requirements (15-19 credits)

---

- [Mason Core UWCU - Written Communication Credits: 6](#)
- [Mason Core UOC - Oral Communication Credits: 3](#)
- [Mason Core UQR - Quantitative Reasoning Credits: 3](#)
- [Mason Core UITC - Information Technology Credits: 3-7](#)

### Core Requirements (22 credits)

---

- [Mason Core UFA - Arts Credits: 3](#)
- [Mason Core UGU - Global Understanding Credits: 3](#)
- [Mason Core ULIT - Literature Credits: 3](#)
- [Mason Core UNSL - Natural Science Credits: 7](#)
- [Mason Core USBS - Social and Behavioral Sciences Credits: 3](#)
- [Mason Core UWC - Western Civilization/Western History Credits: 3](#)

### Synthesis/Capstone Requirement (minimum 3 credits)

---

- [Mason Core USYN - Synthesis/Capstone Credits: minimum 3](#)

**Degree Total: Minimum 120 credits**

---

---